Fuel Cell Connection
November 2000 Issue

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News on U.S. Government Fuel Cell Programs
More Federal Funding for Fuel Cells Approved
More funding for fuel cell programs was approved when President Clinton signed a bill containing the VA-HUD and Energy & Water Appropriations. The Department of Energy's Hydrogen Program received \$29.97 million, and a Molten Carbonate Fuel Cell Demonstration in King County, Washington, received \$300,000 in the signed bill. <a href="mailto:ttp://ftp.loc.gov/pub/thomas/cp106/hr988.txt">ttp://ftp.loc.gov/pub/thomas/cp106/hr988.txt</a>
2. Distributed Power Program to Hold January Review
The Department of Energy's Distributed Power Program will discuss interconnection technologies and standards for distributed energy resources, including fuel cells, at its upcoming Annual Review on January 16-19, 2001, in Washington, DC.  http://www.eren.doe.gov/distributedpower/pdfs/DPPletter1100.pdf
3. EPA Science Center to Run on Fuel Cell Power
The Environmental Protection Agency's Environmental Science Center in Fort Meade, Maryland, is slated for installation of a solid oxide fuel cell from Siemens Westinghouse. The 1MW fuel cell is expected to attain 60% energy efficiency while running on natural gas. <a href="http://www.gnet.org/Coldfusion/News_Page2.cfm?NewsID=13051">http://www.gnet.org/Coldfusion/News_Page2.cfm?NewsID=13051</a>
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4. Conference on Technology Funding Opportunities

The Department of Commerce's Technology Administration will hold a conference to help small businesses learn about funding opportunities in advanced technology development and commercialization. Conference to be held December 4-5, 2000, at Clark Atlanta University in Georgia. http://www.seeport.com/conference/registration.htm

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## 5. Proposals Sought for PEM Fuel Cell R&D

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The Department of Energy has issued a solicitation for R&D of PEM fuel cells for transportation and stationary applications. An total of \$92 million is expected to be available for cost-shared projects 24-48 months in length. Pre-applications are due by December 15, 2000, while the deadline for final applications is February 15, 2001. Topics covered by the RFP include membrane electrode assemblies, bipolar plates, fuel processors, hydrogen storage, and industry assessments.

http://doe-

<u>iips.pr.doe.gov/iips/busopor.nsf/Solicitation+By+Number/7D0BF32A5742F91085</u> 25699E006D1749/\$file/Fuel+Cell+Solicitation+No.+DE-RP04-01AL67057.doc

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## 6. Solicitation for Hydrogen & Fuel Cell Education/Outreach

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The DOE Energy Efficiency & Renewable Energy office is soliciting proposals for projects involving information dissemination, technical analysis, and technical assistance activities involving renewable energy and energy efficiency – including hydrogen and fuel cell technologies. An estimated \$5-7 million will be available for awards. Application due dates for various program areas will be staggered throughout January 2001. Pre-applications are encouraged, with a due date of December 1, 2000.

http://doe-

<u>iips.pr.doe.gov/iips/busopor.nsf/8df825feb86675de852564650046faea/5cd96ac3</u>4f0496d28525699d004dcea2?OpenDocument

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## 7. SECA Final Solicitation Issued, Deadline Extended

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The final version of the Program Solicitation for the Solid State Energy Conversion Alliance has been published, seeking applicants for R&D on solid oxide fuel cell technology. The deadline for the first round of applications has been extended to January 24, 2001.

http://www.netl.doe.gov/business/solicit/main.html#40854

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8. Ultra-Clean Transportation Fuels Solicitation Cancels Topic Area

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The second topic area of the DOE Ultra-Clean Transportation Fuels Solicitation has been deleted, according to an amendment made on November 17, 2000. The topic area had covered "Identification and development of ultra-clean liquid transportation fuels and/or advanced unit operations/processes for their production." Closing date for applications is January 4, 2001. http://www.netl.doe.gov/business/solicit/2000pdf/40758/40758\_a5.pdf

9. Honeywell to Provide Fuel Cells for FutureTruck 2001

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The Department of Energy has selected Honeywell to provide the PEM fuel cells for the FutureTruck 2001 competition. Virginia Tech and Texas Tech have chosen to use fuel cells in sport utility vehicles for the competition. The competition is slated to begin on June 5, 2001.

http://gnet.org/Coldfusion/News\_Page2.cfm?NewsID=13092

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# 10. IMPCO Gets DOE Contract for Hydrogen Fuel System

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DOE has awarded IMPCO Technology a contract to focus on safety and performance validation testing on IMPCO's hydrogen Crash Resistant In-Tank Regulator, and develop concepts to extend the lutra-lightweight TriShield hydrogen storage tank technology to 10,000 psi (700 bar). http://www.impco.ws/new\_page\_8.htm

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# 11. DOE & Coast Guard Contract with FuelCell Energy

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FuelCell Energy has been awarded two new contracts – one from the DOE National Energy Technology Laboratory, and one from the U.S. Coast Guard Research and Development Center – for the development and installation of two Direct Fuel Cell power plants.

http://www.fuelcellenergy.com/prs/2contracts.html

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## 12. IFC Wins EPA Climate Protection Award

International Fuel Cells has been awarded a 2000 U.S. Environmental Protection Agency Climate Protection Award in recognition of its efforts to protect the climate by commercializing fuel cell technology.

http://www.internationalfuelcells.com/library/archive/110600.shtml

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13. Fast Track Power Plant Licensing Could Benefit Fuel Cells
The California Energy Commission has adopted a new six-month "fast track" power plant application process to encourage power projects that will cause no unmitigated, significant environmental impacts, that will comply with all applicable regulations, and are compatible with the State's electricity system. The new power plant licensing regulations can be found at <a href="http://www.energy.ca.gov/sitingcases/proceedings/index.html">http://www.energy.ca.gov/sitingcases/proceedings/index.html</a> .
14. New York Adopts California LEV II Standards
New York State has adopted California's Low Emission Vehicle (LEV II) standards for all light and medium duty motor vehicles, starting in model year 2004. <a href="http://www.state.ny.us/governor/press/year00/nov6_00.htm">http://www.state.ny.us/governor/press/year00/nov6_00.htm</a>
Industry Headlines
15. Seven New Fuel Cell Vehicles Unveiled

Seven new fuel cell vehicles/concepts were introduced in the past month:

DaimlerChrysler has unveiled its fuel cell powered Jeep Commander 2 and NECAR 5, which are both fueled by hydrogen reformed from methanol on-board the vehicles (<a href="http://www.daimlerchrysler.de/news/top/2000/t01107a\_e.htm">http://www.daimlerchrysler.de/news/top/2000/t01107a\_e.htm</a>). Additionally, the company has showcased a direct methanol fuel cell demonstration vehicle that it developed with Ballard Power Systems (<a href="http://www.ballard.com/viewpressrelease.asp?sPrID=179">http://www.ballard.com/viewpressrelease.asp?sPrID=179</a>).

Three new fuel cell vehicles were unveiled at the grand opening of the California Fuel Cell Partnership facility in West Sacramento, California. Hyundai introduced its fuel cell powered Santa Fe, built in collaboration with International Fuel Cells (<a href="http://finance.individual.com/display\_news.asp?doc\_id=BW20001101BW0032&page=news">http://finance.individual.com/display\_news.asp?doc\_id=BW20001101BW0032&page=news</a>). Volkswagen unveiled its first fuel cell-powered concept car, the

Bora (Jetta) HyMotion, which runs on liquid hydrogen with a range of 350km (<a href="http://ens.lycos.com/e-wire/Nov00/01Nov0003.html">http://ens.lycos.com/e-wire/Nov00/01Nov0003.html</a>). Nissan introduced its initial concept for a fuel cell powered Xterra SUV that the company plans to begin fleet-testing in 2001

(http://www.theautochannel.com/news/press/date/20001101/press029881.html).

Ford presented its first production-prototype, direct hydrogen fuel cell vehicle, based on the Focus platform. The Focus FCV was developed by TH!NK Technologies, and will be based at the headquarters of the California Fuel Cell Partnership (http://media.ford.com/article\_display.cfm?article\_id=6461).

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## 16. GM Announces Fuel Processing Advances

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General Motors announced advances in its current gasoline fuel processor for fuel cell vehicles, which it says has obtained more than 80 percent efficiency thanks to a new catalyst system. The catalyst will be used in the next-generation fuel processor that will be installed in a Chevrolet S-10 pickup that GM plans to demonstrate in early 2002.

http://media.gm.com/news/releases/env\_fuelcell\_111600.html

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# 17. Fuel Cell Cellular Phone Power Charger

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Manhattan Scientifics unveiled a working prototype of its MicroFuel Cell™ portable cell phone charger, called the Power Holster™. The charger uses MicroFuel Cells™ to continuously charge a cellular phone, using a methanol-water mixture as the fuel for the fuel cells.

http://www.hawkassociates.com/mhtx/mhtxpr31.htm

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# 18. CFCP Picks Up New Members

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Stuart Energy Systems and XCELLSiS have joined the California Fuel Cell Partnership, bringing the number of Partnership members to 25. http://www.fuelcellpartnership.com/releases/2000-

11\_10\_XCELLSis\_joins\_cafcp.htm

http://www.stuartenergy.com/news/HTML%20Press%20Releases/califpartner.as

Administration

Press releases and story ideas may be forwarded to Bernadette Geyer, editor, for consideration at mailto:bernie@fuelcells.org.

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About Fuel Cell Connection ~~~~~~~~~~~~~~~~~~

The Sponsors

U.S. Fuel Cell Council -- The U.S. Fuel Cell Council is the business association for anyone seeking to foster the commercialization of fuel cells in the United States. Our membership includes producers of all types of fuel cells, as well as major suppliers and customers. The Council is member driven, with five active Working Groups focusing on: Codes & Standards; Transportation; Power Generation; Portable Power; and Education & Outreach. The Council provides its members with an opportunity to develop policies and directions for the fuel cell industry, and also gives every member the chance to benefit from one-on-one interaction with colleagues and opinion leaders important to the industry. Members also have access to exclusive data, studies, reports and analyses prepared by the Council, and access to the "Members Only" section of its web site.

(http://www.usfcc.com/)

National Fuel Cell Research Center -- The mission of the NFCRC is to promote and support the genesis of a fuel cell industry by providing technological leadership within a vigorous program of research, development and demonstration. By serving as a locus for academic talent of the highest caliber and a non-profit site for the objective evaluation and improvement of industrial products, NFCRC's goal is to become a focal point for advancing fuel cell technology. By supporting industrial research and development, creating partnerships with State and Federal agencies, including the U.S. Department of Energy (DOE) and California Energy Commission (CEC), and overcoming key technical obstacles to fuel cell utilization, the NFCRC can become an invaluable technological incubator for the fuel cell industry. (http://www.nfcrc.uci.edu/)

National Energy Technology Laboratory -- The National Energy Technology Laboratory is federally owned and operated. Its mission is "We Solve National Energy and Environmental Problems." NETL performs, procures, and partners in technical research, development, and demonstration to advance technology into the commercial marketplace, thereby benefiting the environment, contributing to U.S. employment, and advancing the position of U.S. industries in the global market.

# (http://www.netl.doe.gov)

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